

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

# SEQUENCE LISTING

<110> Lowry, Charles V.

<120> Plasmids and Methods for Monitoring Endonuclease Digestion Efficiency

<130> 0410.008

<160> 40

<170> PatentIn version 3.0

<210> 1

<211> 645

<212> DNA

<213> H. sapiens

<220>

<221> misc\_feature

<222> (1)..(645)

<223> restriction site-free nucleotide sequence corresponding to nucleotides 72394-73038 of chromosome V

<400> 1

tatataaaaa taataatggt tttacttttt taagtattgg aagtacctta gaaatcattg	60
actttgccca actgccccat tttacagttg tggaaaccga ggtcatagaa ttggtaaatt	120
acgaagaaaa ctgtgtttcc tagtaggtct ccttgccttc actctgcctc caccaccagg	180
agtctctgca cccagtcatc tttctaaggg gtgtgccatc catcactccc caccgcaaac	240
ctctctgtgc cctccaatgc agctagactg aagcctgtga tgtcagtgtg gtcagatccc	300
tgcaacctca gcttgtgttc atggcacact gtgcttctgc taccctggcc ttctctctgc	360
tgtgtgaaca cactaagggt taacccttcc cgttgtcttg gaggggaaaa ttctcccaga	420
tattcaggct tctttgtgtc attcagtctc actcagctca aagggcactt cctctgggct	480
gccctaacct ccaccagaca cccaaactag atgcacaacg ctggtcactc tttcccatca	540
gcctgattgg atgcctctaa agcatgtacc actatctgta ccaactgctca tttattcatt	600
gttcattgtt attgtttgtg tccaatcact gacaggaagc tgcag	645

<210> 2  
 <211> 553  
 <212> DNA  
 <213> H. sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> (1)..(553)  
 <223> restriction site-free nucleotide sequence corresponding to  
 nucleotides 133197-133749 of chromosome V  
  
 <400> 2  
 aagcttttaa gacagaatca tagaccataa aactatttaa taagtacaat gtactaaaaa 60  
 taccctttac tgagacagat tggatgaaatt aaaagagcac cagcttaaag atcaggaagc 120  
 cagatgctgt tctctgctca ggcccagcct caatcatgtg gccctgggca ggcacctcct 180  
 caacttgacc tcagttttgc cctttttaca atggtatcta taagttcttc ttggctctgc 240  
 tattctggaa ttatcttatg tagaataagt cttcccaagc tgtgtggggc ttttcctggg 300  
 agatttgagg gaagttttgt tctgttttgt tttattgttt gcttaccctg ctactgccag 360  
 tgaagtcaac actacaagca gacagtaagc caggaaacat ttctccctgt caggtcagca 420  
 catccatta ggtggatctg gtgctcaagt ttattagatc aggagaccga tgctggggaa 480  
 ggctcacaga gtggtctgag tcagttgctc taccatgagg ttggagtgtg gtagattcaa 540  
 catcctgtgt aca 553

<210> 3  
 <211> 540  
 <212> DNA  
 <213> H. sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> (1)..(540)  
 <223> restriction site-free nucleotide sequence corresponding to  
 nucleotides 75726-76265 of chromosome V  
  
 <400> 3  
 tcatgaggtc aggagattga gaccatcctg gctaacacgg tgaaacccca tctctactaa 60  
 aaatacaaaa aattagccgg gcgtgggtgt gggcacctgt agtcccaact actcgggagg 120

ctgaggcagg agaatggcat gaacctggga ggcagagctt gcagtgagcc tcagattgca 180  
ccactgcact ccagcctggg caacagaatg agactccatc tcaaaaaaaaa aaaaaaacia 240  
cttgtccaag tttatatggc ctggtacagg caggatttag gcaactgaat ccacaggtgc 300  
tgctgaacca ccaggagacc tgctgccccaa gtaactgcaa acggggcacc agggactgtc 360  
taggaccaca ggtcgagttc cacctctgcc aacctagttt gttagccctt ccttccttcc 420  
ttccttccct cctccttccct tttctgttct tgctgcccag ctttcctctt tctacatttc 480  
ttcctcctcc ttccttctct ctgtctcttc tctctacat taagtataag tttttcatga 540

<210> 4  
<211> 536  
<212> DNA  
<213> H. sapiens

<220>  
<221> misc\_feature  
<222> (1)..(536)  
<223> restriction site-free nucleotide sequence corresponding to  
nucleotides 94154-94684 of chromosome V

<400> 4  
ctgcagcagg catctcttgg tgccatgagt cctgggtgggc cttattgatt ccttattcat 60  
ttcttatcac cccatgtgaa tcagattcag ttgcttcaca ttttcttcac tgctcttacc 120  
actgcccgat attatattac agttgtgagt tttgcacctc ttatattaag acagtgtctg 180  
ccacatagta agcacttagt atttgctgaa agttgtaaaa gtgcatcaat gagtatccca 240  
cagtgccggg cacataatag atattccata aattggtgta aaatagcatt tcctctctgt 300  
ccagggaaca gggatgaggg tggtataaat ggggagcatt ttgttcaggg atgttttctg 360  
gatgtggcat ttgagctaga ccttaaaaga tggagtacaa ttccacaagg aaggcttagt 420  
agttgggcat tccaaacaaa aaggacaggt gtttagacat ggaaagcatt agggacattt 480  
gagaaattgg gaatagctca gtttagctgg cagactggaa atacaaagag gaattc 536

<210> 5  
 <211> 514  
 <212> DNA  
 <213> H. sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(514)  
 <223> restriction site free nucleotide sequence corresponding to  
 nucleotides of Chromosome V

<400> 5  
 agtactttatt acatttttagg tcttatttaa ttgtctgtgt tcctctccat tcccaccaac 60  
 tagggcctga cacatagggg ttcaataatt gtcaagtgat tgacagaatg aatgaatgga 120  
 tggatgagtg aaaaagtctc tccatttcca gtgtgtattc tctctaatat cttctacatt 180  
 ctacactgaa attgtctttt tgaaagcctg gacttcttca gtggcttgtc attgccagtg 240  
 gataaaatgc agacttttca tctgtgcatt caagaactac cacatatagt ctcagcctac 300  
 ctttctctt tttttttttt tttagatgga gcctttctct gctgcccagg ctggagtgca 360  
 gtggcatggg ctcggttcac tgcaacctct gcctgttggg tgcaagagat tctcctgcct 420  
 cagcctcctg agtagctggg attacaggca cccaccacca ccccagcta atttttgtat 480  
 ttttagtaga gatggagttt caccatgttg gccca 514

<210> 6  
 <211> 507  
 <212> DNA  
 <213> H. sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(507)  
 <223> restriction site free nucleotide sequence corresponding to  
 nucleotides of Chromosome V

<400> 6  
 gaattcatgt taatccacat agagaattga gagatcagag ctttcaataa atgccaacca 60  
 acatttacag tgtattgtct gtcagcacag tgctgtgaca gtgctgggga taaaacaaca 120

```

cagacgccag ggcacagac cctaccccca cggttgcttt atgtactctc agggcacagg 180
gacgctttca ttctgtgctc ttatcacact gacttggtgc atctcttgac tgtcagtctc 240
tcccactgaa ctacaaacct tttagagagca gaagcccttt ttcttttatt gttttctcag 300
catttcatat cctattgcac aaatcaggac ttggcacata atagatgctc cataagtaat 360
ggttgaataa atgaataaat acatagtacc cgtattagtt tgctagggtc tccataacaa 420
aataccacag cctgggtggc ttacacaatg gaattttatt ttctcatggt cttggagggt 480
ggaagtccaa gatcaagggtg cctgcag                                     507

```

```

<210> 7
<211> 488
<212> DNA
<213> H. sapiens

```

```

<220>
<221> misc_feature
<222> (1)..(488)
<223> restriction site free nucleotide sequence corresponding to
nucleotides of Chromosome V

```

```

<400> 7
aaatttacgc agaagcagga tacagaaagc agccagaagt ggagcagcac cagccgggggt 60
ggggaccaag acctcccacc ctcttggtg tctgtctgcc tttagagggtc ctctgccaaa 120
gtggcgctct gctgagcaaa gtaatccctc agggcactcc aactctgaga cagaatgatt 180
tatagccctg ttaatccacc aggctgtcaa aaacggccac atcagcagac atacacagag 240
acatgcagtc acatacactc aggacaaaaa ataagcccca gaaactgctt gagcaagctc 300
aggcttttct ctgacacctt cctcatttgt tcaagttttt gccatcttta ttttcatttc 360
ctggtttctt ctacatcctt tcctcttttc cctccaagt tactaaaaat tctaacaatt 420
tctactttta cttctttggt gttatctgcg gcacatcggt gccccacccc cactcttggt 480
cgctatag                                     488

```

<210> 8  
 <211> 477  
 <212> DNA  
 <213> H. sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> (1)..(477)  
 <223> restriction site free nucleotide sequence corresponding to  
 nucleotides of Chromosome V

<400> 8  
 ttgcaagctg gagacccaga aaaactgata atgtagtaca agtccaaaca ttggcagact 60  
 tgagacctgg gaagagccaa tgttttagtt taagtctgtc agtaaaaaga aaccaatgtg 120  
 ccagctcaaa ggcagacaag catgggaatt ttctattata gggaggaagg tcagcctttt 180  
 tttcctattc aggtcttcaa tggattggac gggaaccatc cacattaggg agggcaatct 240  
 gctttactta gtctcccaaa tcaaattgta atctcatcca gaaatatcag cacacacaac 300  
 cttagaataa tgtctgacca aatgtctggg cacccaatag ctcaagtcaag ttgacacata 360  
 aaattaacca tcacttggcc ggacgctgtg gctcacacct gttatcccag cactttgggt 420  
 gggtaggatca cctgagggtc cttaggaatg taaagagggt agcacttaga atctaga 477

<210> 9  
 <211> 465  
 <212> DNA  
 <213> H. sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> (1)..(465)  
 <223> restriction site free nucleotide sequence corresponding to  
 nucleotides of Chromosome V

<400> 9  
 aagcttaciaa cttgctggtg ctgtttcctg ggatttactc cctgctctgg agtatctcta 60  
 aacctttgga ggtgctacca catgccccac cctcacccca gggtttgatg accaccccat 120  
 cttttaggag ttccccttat ttttatatcc tcatcctttc tctatccatg ctcaagtcatg 180

gtcaatgtga aatctgtgct gtggctttcc tggcttggct cttcatagat aaacctataa 240  
agccaagatt tgagaaatct ttctctctct ctctctctct ctctctctct ctctcaataa 300  
agttggtggt cttttttttt tcttttagcaa attggcaaca tttcctatca gattatgtat 360  
tgttcacagg ctatacaaac tctaggaact atcagggggtt atttgaaga aaaacaactg 420  
gtgtactatt tttctaaata ctacacctac aaaacatcca atatt 465

<210> 10  
<211> 26  
<212> DNA  
<213> Artificial sequence  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 10  
gaattcaaaa gtcgacaaaa ggatcc 26

<210> 11  
<211> 26  
<212> DNA  
<213> Artificial sequence  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 11  
ggatcctttt gtcgactttt gaattc 26

<210> 12  
<211> 38  
<212> DNA  
<213> Artificial sequence  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 12  
gagagaattc tataaagctt cgtattccaa tgggggagc 38



<210> 13  
 <211> 34  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 13  
 gagagtcgac agaaaacatt ctctagggat tacg 34  
  
  
 <210> 14  
 <211> 51  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 14  
 gagagtcgac tataagatct ccataccatt gtagtattga ctactaacta c 51  
  
  
 <210> 15  
 <211> 41  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 15  
 gagaggatcc tataactcgag tagaaaacca gattttgcct c 41  
  
  
 <210> 16  
 <211> 45  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 16  
 agcttaagca tgcggcgcgcc ggcggtaacc ggtaccacta gttcg 45

<210> 17  
<211> 45  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 17  
aattcgaact agtggtaccg gttaccgccg gcggccgcat gctta 45

<210> 18  
<211> 49  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 18  
gatctgtcta gacgcgtatc gatatcaatt gaggcctgca gctgttaac 49

<210> 19  
<211> 50  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 19  
tcgacgttaa cagctgcagg cctcaattga tatcgatagc cgtctagaca 50

<210> 20  
<211> 42  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 20  
gacccatggc gccatggcca gctagcccgg gcccatatga gc 42

<210> 21  
 <211> 42  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction

<400> 21  
 tcgagctcat atgggcccgg gctagctggc catggcgct ag 42

<210> 22  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction

<400> 22  
 ctagctgcag ctgttaacgt cgac 24

<210> 23  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction

<400> 23  
 aattgtcgac gttaacagct gcag 24

<210> 24  
 <211> 13  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction

<400> 24  
tatgagctcg aga 13

<210> 25  
<211> 21  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 25  
tcgatctcga gctcatatgc a 21

<210> 26  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 26  
ctagcccggg cccactagtt cgaat 25

<210> 27  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> oligonucleotide used for plasmid construction

<400> 27  
tcgaattcga actagtgggc ccggg 25

<210> 28  
<211> 26  
<212> DNA  
<213> Artificial sequence  
  
<220>

<223> oligonucleotide used for plasmid construction

<400> 28

agctagatct gtctagacgc gtcacg

26

<210> 29

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> oligonucleotide used for plasmid construction

<400> 29

acgcgtctag acagatct

18

<210> 30

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> oligonucleotide used for plasmid construction

<400> 30

gacgcatcc taggcgc

17

<210> 31

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> oligonucleotide used for plasmid construction

<400> 31

cgcggcgcc aggatcc

17

<210> 32

<211> 17

<212> DNA

<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 32  
gatcaagctt aagcatg

17

<210> 33  
<211> 15  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 33  
cgcatgctta agctt

15

<210> 34  
<211> 49  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 34  
agcttaccgg tctagagctc aattggccac ccgggcccta ggctgcag

49

<210> 35  
<211> 49  
<212> DNA  
<213> Artificial sequence

<220>  
<223> oligonucleotide used for plasmid construction

<400> 35  
aattctgcag gcctagggcc cgggtggcca attgagctct agaccgga

49

<210> 36  
<211> 47

<212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 36  
 gatcttaagt atcgatgccg gcgccatggt aaccatatgt taactag 47  
  
  
 <210> 37  
 <211> 47  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 37  
 tcgactagtt aacatatggt taccatggcg ccggcatcga tacttaa 47  
  
  
 <210> 38  
 <211> 48  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 38  
 tcgagatatc acgcgttcga agctagcggc cgcgatcgggt accagctg 48  
  
  
 <210> 39  
 <211> 48  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> oligonucleotide used for plasmid construction  
  
  
 <400> 39  
 gatccagctg gtaccgcatg cggccgctag cttcgaacgc gtgatatc 48

<210> 40  
<211> 12  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> oligonucleotide used for plasmid construction  
  
<400> 40  
gatcgtcgac

12

0909534-11001